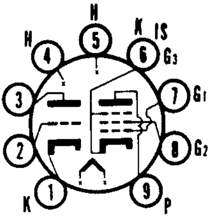


SYLVANIA TYPE 6BA8 6BA8A 8BA8A



TRIODE PENTODE

9DX

MECHANICAL DATA

Bulb	T-6½, Outline 6-3
Base	E9-1, Miniature Button, 9-Pin
Basing	9DX
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

	6BA8	6BA8A	8BA8A
Heater Voltage	6.3	6.3	8.4 Volts
Heater Current	600	600	450 Ma
Heater Warm-up Time	11	11	11 Seconds
Maximum Heater-Cathode Voltage			
D C and Peak			200 Volts
D C, Heater Positive with Respect to Cathode			100 Volts

DIRECT INTERELECTRODE CAPACITANCES

Triode	Shielded[1]	Unshielded
Grid to Plate	2.2	2.2 μμf
Input	2.7	2.5 μμf
Output	1.9	0.4 μμf
Pentode		
Grid to Plate	.030	0.036 μμf Max
Input	10.0	10.0 μμf
Output	4.5	3.6 μμf
Coupling		
Pentode Grid No. 1 to Triode Plate	.003	.006 μμf Max
Pentode Plate to Triode Grid	.006	.016 μμf Max
Pentode Plate to Triode Plate	.023	.150 μμf Max

MAXIMUM RATINGS (Design Center Values)

	Triode	Pentode
Plate Voltage	300	300 Volts
Grid No. 2 Supply Voltage		300 Volts
Grid No. 2 Voltage	See Rating Chart for Type 6AM8	
Plate Dissipation	2.0	3.25 Watts
Grid No. 2 Dissipation		1.0 Watt
Negative Grid No. 1 Voltage		50 Volts
Positive Grid No. 1 Voltage		0 Volts
Grid No. 1 Circuit Resistance		
Fixed Bias	0.5	0.25 Megohm
Self Bias	1.0	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

Class A_1 Amplifier	Triode	Pentode
Plate Voltage	200	200 Volts
Grid No. 2 Voltage		150 Volts
Grid No. 1 Voltage	−8	0 Volts
Cathode Bias Resistor		180 Ohms
Amplification Factor	18	
Plate Resistance (approx.)	6700	400,000 Ohms
Transconductance	2700	9000 μmhos
Plate Current	8.0	13 Ma
Grid No. 2 Current		3.5 Ma
Grid No. 1 Voltage for I_b = 10 μa (approx.)	−16	−10 Volts

PLATE KNEE CHARACTERISTICS (6BA8A, 8BA8A)

$E_b = 65V$, $E_{c2} = 150V$, $E_{c1} = 0V$
$I_b = 42$ Ma, $I_{c2} = 12.5$ Ma

NOTES:

1. Shield No. 315 tied to cathode base pin of section under test.
2. The pentode section curve applies to Types 6BA8A and 8BA8A, only.

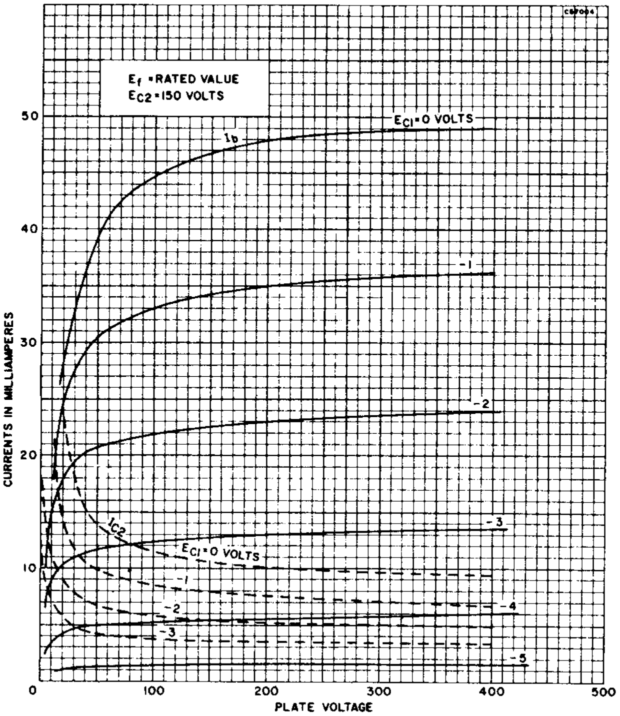
APPLICATION

The Sylvania Types 6BA8, 6BA8A and 8BA8A are intended for service in television receivers employing a series heater string. The triode may be used as a sync clipper or sync separator. The pentode section is designed primarily to serve as a video amplifier. For information on specially controlled heaters for series string operation refer to the SERIES STRING section of the Appendix.

6BA8, 6BA8A, 8BA8A (Cont'd)

AVERAGE PLATE CHARACTERISTICS

PENTODE SECTION



AVERAGE PLATE CHARACTERISTICS

TRIODE SECTION

